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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/006,921 | 12/03/2001 | Mika Kosonen | 915.403 | 9285 |
| 4955 | 7590 | 08/26/2005 | EXAMINER | |
| WARE FRESSOLA VAN DER SLUYS & ADOLPHSON, LLP BRADFORD GREEN BUILDING 5 755 MAIN STREET, P O BOX 224 MONROE, CT 06468 | | | ELALLAM, AHMED | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2662 | |

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/006,921 | Applicant(s) KOSONEN ET AL. | |
| | Examiner AHMED ELALLAM | Art Unit 2662 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/03/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Figures 1, 2A and 2B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park US (6,430,197) in view of Kim, US (5,521,918). Hereinafter referred to as Park and Kim respectively.

Regarding claims 1 and 8, with reference to figure 2, Park discloses a demultiplexing method /apparatus for supplying input data received from the ATM device 100 to the plurality of physical devices 610-640, wherein a

decoding/demultiplexing unit 400 having control signals (claimed control means as in claim 8), wherein the demultiplexing of ATM cells between the ATM layer device and the physical devices is carried out using UTOPIA level 1 interface, see column 10, lines 23-28, (claimed supplying input data received from an input channel to a plurality of output channels, wherein the plurality of output channels are connected to a plurality of physical protocol layer devices having the same interface address allocated), (the use of the UTOPIA level 1 interface reads on the protocol layer devices having the same interface address allocated), Park also discloses a prior art demultiplexing method/apparatus (figure 1) in which an input buffer 20 is provided for connecting to an input channel and a plurality of output buffers 1-N are connected to a plurality of output channel (in accordance with UTOPIA level 2). See column 1, lines 2-43. (Claimed providing an input buffer connected to input channel and a plurality of output buffers respectively connected to plurality of output channels). In addition Park discloses generating a signal for physical devices 610-640 can receive cells, see column 4, lines 54-60, (it is inherent that each physical device has an input buffer (claimed output buffer) because it needed for indicating the capability of the physical device to receive the data).

While Park teaches the indication from all the physical devices 610-640 to receive data (inherently based on the capacity of each physical device's buffer to receive data), it does not teach releasing transmission of input data from input buffer (means as in claim 8) to the plurality of output buffers, when all of the plurality of output buffers are capable of receiving data.

However, Kim teaches releasing transmission of input data from input buffer (means as in claim 8) to plurality of output buffers, when all of the plurality of output buffers are capable of receiving data. See column 5, lines 7-17.

It would have been obvious to a person of ordinary skill in the art, at the time the invention was made to combine the teaching of Park demultiplexing method /apparatus of Park with the releasing of input buffer transmission to output buffers taught by Kim so that UTOPIA 1 level interface demultiplexing between the ATM device and physical devices of Park can be implemented on the physical devices and ATM layer devices of prior art system (Park, figure 1). The advantage would be the ability to have faster data transfer between the ATM and physical devices. It would be also advantageous to reduce cost by using the UTOPIA level 1 standard for already installed UTOPIA level 2 standard devices of prior art. (Park, column 10, lines 23-28).

Regarding claims 2 and 9, Kim discloses that the buffers are FIFO buffers, see column 5, lines 15-18.

Regarding claims 3, 5, 6, 16 18,19, Park discloses the plurality of the physical protocol layer devices are UTOPIA level 1 compliant (as in claims 3 and 16), and the input channel is connected to the ATM device (as in claim 5 and 18), and the ATM device is UTOPIA level 1 device (as in claims 6,19). See column 10, lines 23-28.

Regarding claims 4 and 17, Park discloses the physical devices for receiving ATM cells, and all the devices are UTOPIA level 1, see column 10, lines 23-28. (Claimed plurality of output channels are connected to a plurality of ATM devices having the same interface address allocated).

Regarding claims 10 and 21, as discussed above, Park discloses the decoding/demultiplexing unit 400 (figure 2) (claimed control means) for generating a signal indicating that first to fourth physical layer devices 610 to 640 (claimed output buffers means as discussed above in claim 1 and 8) can receive cells, see column 4, lines 54-60. Park does not specify the unit 400 supply a release signal to input buffer when the control signal has been received from all the plurality of output buffer means.

Kim as discussed above, teaches releasing transmission of input data from input buffer (means as in claim 8) to plurality of output buffers, when all of the plurality of output buffers are capable of receiving data. It would have been obvious to a person of ordinary skill in the art, at the time the invention was made to enable the unit 400 to supply a release signal to input buffer when the control signal has been received from all the plurality of output buffers. A person of skill in the art would do so for implementing the method of Park in view Kim as indicated in claim 1.

Regarding claim 11-14, 22-24, Park discloses the input channel is connected to the ATM device (as in claims 11 and 22), the ATM device is UTOPIA level 1 device (as in claim 12), the plurality of the physical protocol layer devices are UTOPIA level 1 compliant (as in claims 13 and 23), and the output channel are connected to a plurality of ATM devices having the same interface address allocated (as in claims 14 and 24), (the physical devices are ATM devices). See column 10, lines 23-28.

Regarding claims 7, 15, 20 and 25, claims 7 and 20 are a multiplexing method having steps of providing communication from the physical devices to the ATM device,

claims 15 and 25 are a multiplexing apparatus having elements for providing communication from the physical devices to the ATM device.

As to claims 7 and 20 Park discloses a prior art system (figure1) in which a multiplexing take place in which the plurality of output buffers (in case of demultiplexing) connected to the physical layer devices becomes input buffers (in case of multiplexing) and the input buffer connected to the ATM device (in case of demultiplexing) becomes output buffer (in case of multiplexing), see column 1, lines 66-67 and column 2, lines 1-43. (Claimed multiplexing method for supplying input data received from one of a plurality of the output channels now functioning as input channels, to the input channel now functioning as an output channel, using said output buffers as a plurality of input buffers respectively connected to said plurality of input channels, and using the input buffer (301) as an output buffer connected to output channel, storing received input data in a respective one of the plurality of input buffers and releasing transmission of the input data from the respective one of the plurality of input buffers to the output buffer, when the output buffer is capable of receiving data).

As to claim 15 and 25, claims 15 and 25 are apparatus claims having substantially the same scope of claims 7 and 20, thus they are subject to the same rejections.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Holden et al, US (6147,997); Bishop, US (6,266,748); Mizukoshi et al, US (6,307,858); Tse et al, US (6,345,052); Nichols et al, US (6,356,557);


Yamanaka, 2003/0086429 A!; Tanaka et al, US (6,611,523); Hann, US (6,751,233);
Kaee et al, US (6,850,523).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou Hassan can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHMED ELALLAM
Examiner
Art Unit 2662
August 23, 2005


JOHN PEZZLO
PRIMARY EXAMINER